

REMARKS

Entry of this amendment with allowance is requested.

It is proposed to amend claim 1 to specify that the mixture of ursolic acid and oleanolic acid is isolated from fruit skins and contains less than 20 wt% of the natural apolar and/or low molecular weight components present in natural extracts of ursolic acid and oleanolic acid which provide the off taste to the natural extract.

No new issues are raised by the amendments to claim 1 as these features appeared in claims 2 and 9, it being noted that claim 9 depends from claim 5 which in turn goes back to claim 1 through the intervening claim dependency.

Claim 2 is being amended to avoid redundancy with respect to the amendments to claim 1.

The Examiner is requested to reconsider the Section 103(a) rejection of claims 1-14 and 17-23 based on the combination of U.S. 5,948,460 (the '460 patent) in view of U.S. 4,752,606 (the '606 patent) and SU 827066. There is no valid basis for combining the references as the Examiner has done to reject the claims. There is, in particular, no motivation in the references to make the selections and changes needed in the art to reach the applicants' invention.

As the applicants' specification brings out, ursolic acid and oleanolic acid are compounds which are known for use as food additives for health effects. Compositions comprising ursolic acid and oleanolic acid in weight ratios of 1:99 to 99:1 can be obtained by extracting natural sources like fruit skins or herbs, in particular, by extracting skins of apples, pears, cranberries, cherries and prunes. The extracts so obtained contain ursolic acid and oleanolic acid in amounts of about 5-60% and in weight ratios mentioned above. However, these extracts have a major drawback in that they display a severe negative off flavor.

Since the extracts are intended for use as health components in food products, the negative off flavor resulting from the use of the extracts has seriously limited their use, notwithstanding the health effects that they can offer.

None of the Examiner's references is concerned with the off flavor encountered with prior art extracts comprising ursolic acid and oleanolic acid and it follows that these references do not and cannot suggest to one skilled in the art what might cause the off flavor of such extracts. The applicants' discovery that the off flavor is caused by natural apolar and/or low molecular weight components in the extracted mixture of acids, represents an essential aspect of the applicants' invention and nothing in the Examiner's references is suggestive of this finding.

More specifically, the '460 patent discloses the addition of one or more compounds selected from oleanolic acid, ursolic acid and polygodial to a flavored product, particularly a diet drink, containing an artificial sweetener, to reduce the aftertaste from the use of the artificial sweetener. The additive may be used as a purified product or as a crude extract from plants.

While '460 is concerned with the undesirable aftertaste caused by artificial sweeteners, the patent says nothing about the undesirable off flavor which is introduced by using plant extracts of ursolic acid and oleanolic acid. Since the '460 patent is not concerned with the applicants' problem, the patent cannot suggest the applicants' solution to the problem or make the solution obvious to one in the art even if the Examiner's other references are considered.

The '606 patent relates to pharmaceutical compositions which contain oleanolic acid for treating ulcerogenic disorders. The patent does not disclose the use of ursolic acid with oleanolic acid. The oleanolic acid used in the '606 patent may be obtained by extraction from plants, e.g. grape husks (see Col. 5, lines 1-3 and Example 1). There is no teaching in the '606 patent to use mixtures of ursolic acid and oleanolic acid in any way, much less with a glyceride as called for by the applicants' claims. Furthermore, there is nothing in the '606 patent to indicate that there would be any ursolic acid with the oleanolic acid when the latter is extracted. Additionally, there is nothing in the references to indicate any off flavor problem with oleanolic acid or any solution to such problem.

The same is true for SU 827066. This reference describes the preparation of ursolic acid by extraction from catmint. There is no reference in SU 827066 to oleanolic

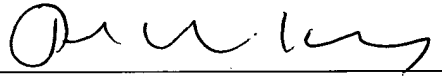
acid or any indication that such acid would be present in catmint in admixture with the ursolic acid as extracted or otherwise. Furthermore, there is no reference to the problem of off flavor in extracts of ursolic acid and oleanolic acid.

In brief, none of the Examiner's references is concerned with the problem the applicants have dealt with in the manner claimed. Clearly, therefore, there is nothing in the references, no matter how they are considered, which makes the invention obvious.

Favorable reconsideration, with allowance, is requested.

Respectfully submitted,

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APPENDIX

Version with Markings to Show Changes Made

IN THE CLAIMS

The claims are amended as follows:

1. (Thrice Amended) A blend of a health component and a glyceride, wherein the health component is a mixture comprising ursolic acid and oleanolic acid in a weight ratio of 1:99 to 99:1, wherein the mixture is isolated from fruit skins and contains less than 20 wt % of the natural apolar and/or low molecular weight components [as] present in natural extracts for ursolic acid and oleanolic acid which provide an off taste to said natural extract, and wherein the blend contains 1-99 wt % of one or more components selected from mono-, di- and triglycerides as the glyceride.

2. (Twice Amended) A blend according to claim 1 wherein the natural apolar and/or low molecular weight components [are the components] that provide an off taste to the natural extract [and] belong to the class of hydrocarbons, alcohols, fatty acids, triglycerides, ketones and carbohydrates.